WEST Search History

DATE: Tuesday, April 01, 2003

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT; PLUR=YES; OP=ADJ			
L8	L7 and cre and flp	68	L8
L7	l3 and (excise or excision)	113	L7
L6	l4 and l3	0	L6
L5	L4 and l3	0	L5
L4	activate near transgene	6	L4
L3	L2 and activate	185	L3
L2	L1 and site specific	304	L2
L1	plant and recombinase	537	L1

END OF SEARCH HISTORY

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NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2	Apr 08	"Ask CAS" for self-help around the clock
NEWS 3	Apr 09	BEILSTEIN: Reload and Implementation of a New Subject Area
NEWS 4	Apr 09	ZDB will be removed from STN
NEWS 5	Apr 19	US Patent Applications available in IFICDB, IFIPAT, and IFIUDB
NEWS 6	Apr 22	Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS
NEWS 7	Apr 22	BIOSIS Gene Names now available in TOXCENTER
NEWS 8	Apr 22	Federal Research in Progress (FEDRIP) now available
NEWS 9	Jun 03	New e-mail delivery for search results now available
NEWS 10	Jun 10	MEDLINE Reload
NEWS 11	Jun 10	PCTFULL has been reloaded
NEWS 12	Jul 02	FOREGE no longer contains STANDARDS file segment
NEWS 13	Jul 22	USAN to be reloaded July 28, 2002; saved answer sets no longer valid
NEWS 14	Jul 29	Enhanced polymer searching in REGISTRY
NEWS 15	Jul 30	NETFIRST to be removed from STN
NEWS 16	Aug 08	CANCERLIT reload
NEWS 17	Aug 08	PHARMAMarketLetter(PHARMAML) - new on STN
NEWS 18	Aug 08	NTIS has been reloaded and enhanced
NEWS 19	Aug 19	Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN
NEWS 20	Aug 19	IFIPAT, IFICDB, and IFIUDB have been reloaded
NEWS 21	Aug 19	The MEDLINE file segment of TOXCENTER has been reloaded
NEWS 22	Aug 26	Sequence searching in REGISTRY enhanced
NEWS 23	Sep 03	JAPIO has been reloaded and enhanced
NEWS 24	Sep 16	Experimental properties added to the REGISTRY file
NEWS 25	Sep 16	CA Section Thesaurus available in CAPLUS and CA
NEWS 26	Oct 01	CASREACT Enriched with Reactions from 1907 to 1985
NEWS 27	Oct 21	EVENTLINE has been reloaded
NEWS 28	Oct 24	BEILSTEIN adds new search fields
NEWS 29	Oct 24	Nutraceuticals International (NUTRACEUT) now available on STN
NEWS 30	Oct 25	MEDLINE SDI run of October 8, 2002
NEWS 31	Nov 18	DKILIT has been renamed APOLLIT
NEWS 32	Nov 25	More calculated properties added to REGISTRY
NEWS 33	Dec 02	TIBKAT will be removed from STN
NEWS 34	Dec 04	CSA files on STN
NEWS 35	Dec 17	PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS 36	Dec 17	TOXCENTER enhanced with additional content
NEWS 37	Dec 17	Adis Clinical Trials Insight now available on STN
NEWS 38	Dec 30	ISMEC no longer available
NEWS 39	Jan 21	NUTRACEUT offering one free connect hour in February 2003
NEWS 40	Jan 21	PHARMAML offering one free connect hour in February 2003
NEWS 41	Jan 29	Simultaneous left and right truncation added to COMPENDEX, ENERGY, INSPEC
NEWS 42	Feb 13	CANCERLIT is no longer being updated
NEWS 43	Feb 24	METADEX enhancements
NEWS 44	Feb 24	PCTGEN now available on STN
NEWS 45	Feb 24	TEMA now available on STN

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 NEWS 46   Feb 26  NTIS now allows simultaneous left and right truncation
 NEWS 47   Feb 26  PCTFULL now contains images
 NEWS 48   Mar 04  SDI PACKAGE for monthly delivery of multifile SDI results
 NEWS 49   Mar 19  APOLLIT offering free connect time in April 2003
 NEWS 50   Mar 20  EVENTLINE will be removed from STN
 NEWS 51   Mar 24  PATDPAFULL now available on STN
 NEWS 52   Mar 24  Additional information for trade-named substances without
                   structures available in REGISTRY
 NEWS 53   Mar 24  Indexing from 1957 to 1966 added to records in CA/CAPLUS

 NEWS EXPRESS  January 6 CURRENT WINDOWS VERSION IS V6.01a,
               CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),
               AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002
 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
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FILE 'HOME' ENTERED AT 16:10:24 ON 01 APR 2003

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COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
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FULL ESTIMATED COST                                     0.21       0.21

FILE 'AGRICOLA' ENTERED AT 16:10:32 ON 01 APR 2003

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FILE 'BIOSIS' ENTERED AT 16:10:32 ON 01 APR 2003
COPYRIGHT (C) 2003 BIOLOGICAL ABSTRACTS INC.(R)

=> s recombinase and plant?
L1          347 RECOMBINASE AND PLANT?

=> s l2 and excis?
L2 NOT FOUND
The L-number entered could not be found.  To see the definition
of L-numbers, enter DISPLAY HISTORY at an arrow prompt (=>).

=> s l1 and excise?
L2           43 L1 AND EXCISE?

=> del l2 y

=> s l1 and excis?
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L2 108 L1 AND EXCIS?

=> s l2 and (marker or transgene)
L3 59 L2 AND (MARKER OR TRANSGENE)

=> dup rem l3
PROCESSING COMPLETED FOR L3
L4 43 DUP REM L3 (16 DUPLICATES REMOVED)

=> d 1-10 ti

L4 ANSWER 1 OF 43 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI A simple Cre-loxP method for chromosomal N-terminal tagging of essential and non-essential Schizosaccharomyces pombe genes.

L4 ANSWER 2 OF 43 CAPLUS COPYRIGHT 2003 ACS
TI A Self-**Excising** Cre **Recombinase** Allows Efficient Recombination of Multiple Ectopic Heterospecific Lox Sites in Transgenic Tobacco

L4 ANSWER 3 OF 43 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI Nontransgenic crops from transgenic **plants**.

L4 ANSWER 4 OF 43 CAPLUS COPYRIGHT 2003 ACS
TI Use of integrases to promote the insertion of foreign DNA into the plastid genome

L4 ANSWER 5 OF 43 CAPLUS COPYRIGHT 2003 ACS
TI Two site-specific recombination system for **excising** **transgene** from **plant** leading to reduction of transmission of **transgene**

L4 ANSWER 6 OF 43 CAPLUS COPYRIGHT 2003 ACS
TI Self-**excising** polynucleotides containing the .phi.C31 **recombinase** gene for use in dicot and monocot **plants**

L4 ANSWER 7 OF 43 CAPLUS COPYRIGHT 2003 ACS
TI Inducible expression constructs for site-specific **recombinase** genes and their use in regulated **excision** of transforming DNA from **plant** genomes with selection of transformed **plants**

L4 ANSWER 8 OF 43 CAPLUS COPYRIGHT 2003 ACS
TI Methods for the controlled, automatic **excision** of heterologous DNA from transgenic **plants** and DNA-**excising** gene cassettes for use therein

L4 ANSWER 9 OF 43 CAPLUS COPYRIGHT 2003 ACS
TI Site-specific recombination of genes for gene stacking in **plant** and animal chromosomes using bacteriophage .phi.C31 irreversible and Cre reversible recombinases

L4 ANSWER 10 OF 43 CAPLUS COPYRIGHT 2003 ACS
TI Molecular control of **transgene** escape by a repressible **excision** system using controlled **recombinase** expression

=> d 2 ab

L4 ANSWER 2 OF 43 CAPLUS COPYRIGHT 2003 ACS
AB To study the impact of different DNA configurations on the stability of **transgene** expression, a variant of the cre gene was developed. This variant allows for the highly efficient in **planta** removal of its own loxP-flanked coding sequence as well as other DNAs flanked by ectopic heterospecific lox sites, either lox511 or lox2272 or both, in

trans. The **plant** intron-contg. cre gene, creINT, was configured in such a way that self-**excision** generated an intact hygromycin resistance selectable **marker** gene. In this combination, all selected transformants showed highly efficient **excision**. **Plants** obtained showed no indication of any chimerism, indicating a cell autonomous nature of the hygromycin selection during transformation and regeneration. The highly efficient concomitant removal of wildtype and heterospecific lox site-flanked DNA demonstrated that upon retransformation with the self-**excising** creINT, sufficient amts. of Cre enzyme were produced prior to its removal. **Plants** obtained with creINT showed much less frequently the Cre-assocd. phenomenon of reduced fertility than **plants** obtained with a continuous presence of Cre **recombinase**. The creINT system has therefore advantages over systems with a continuously present Cre. The creINT system was successfully used for removal of two chromatin boundary elements from **transgene** cassettes in tobacco. Anal. of **plants** with and without boundary elements on the same chromosomal location will contribute to a better evaluation of the role of such elements in the regulation of **transgene** expression in **plants**.

=> d 2 so

L4 ANSWER 2 OF 43 CAPLUS COPYRIGHT 2003 ACS
SO Transgenic Research (2003), 12(1), 45-57
CODEN: TRSEES; ISSN: 0962-8819

=> d 3 ab

L4 ANSWER 3 OF 43 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

=> d 3 so

L4 ANSWER 3 OF 43 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
SO Nature Biotechnology, (March, 2002) Vol. 20, No. 3, pp. 215-216.
http://www.nature.com/nbt/. print.
ISSN: 1087-0156.

=> d 5 so

L4 ANSWER 5 OF 43 CAPLUS COPYRIGHT 2003 ACS
SO PCT Int. Appl., 38 pp.
CODEN: PIXXD2

=> d 5 pi

L4 ANSWER 5 OF 43 CAPLUS COPYRIGHT 2003 ACS

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002016624	A1	20020228	WO 2000-SG124	20000825
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 2000070487	A5	20020304	AU 2000-70487	20000825

=> d 5 ab

L4 ANSWER 5 OF 43 CAPLUS COPYRIGHT 2003 ACS
AB The invention provides a method for two site-specific recombination in **plant** cells that can be used for **excising** DNA sequences encoding a **transgene**, at a specific developmental stage. The two site-specific recombination system allows for the construction of transgenic **plants** that contain genes whose genetic transmission through reprodn. can be regulated. The invention also provides DNA constructs and vectors that can be used to transform **plant** material that allows for the said two-site specific recombination. The invention relates that the DNA constructs/plasmids may contain: (a) DNA sequences encoding a **transgene** linked to a **plant** -specific promoter and flanked by sequences recognized by a first site-specific **recombinase**, and (b) DNA sequences for said first site-specific **recombinase** gene linked to a transient promoter, wherein gene and promoter are sepd. by a blocking sequence and sequences recognized by a second **recombinase**. The invention also relates that the DNA constructs/plasmids may also include a third DNA sequence encoding the second site-specific **recombinase** gene, linked to a **plant**-specific promoter. The invention further relates that the two site-specific recombination system may be contained in one transgenic **plant**, or may be contained in two **plants** that are crossed. The invention further provides **plant** cells, **plant** tissues and **plant** seed transformed with said DNA constructs/plasmids. The invention specifically discloses the use of DNA sequences encoding the FLP and Cre recombinases, which are specific for the FRT and lox sequences, resp. The invention also discloses the use of DNA sequences encoding the SPL and atDMC1 promoters.

=> d 5 in

L4 ANSWER 5 OF 43 CAPLUS COPYRIGHT 2003 ACS
IN Sundaresan, Venkatesan; Hong, Yan

=> d 11-20 ti

L4 ANSWER 11 OF 43 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 1
TI **Excision** of selectable **marker** genes from transgenic **plants**

L4 ANSWER 12 OF 43 AGRICOLA DUPLICATE 2
TI Cre/lox site-specific recombination controls the **excision** of a **transgene** from the rice genome.

L4 ANSWER 13 OF 43 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI Site-specific targeting of exogenous DNA into the genome of Candida albicans using the FLP **recombinase**.

L4 ANSWER 14 OF 43 CAPLUS COPYRIGHT 2003 ACS
TI Nontransgenic crops from transgenic **plants**

L4 ANSWER 15 OF 43 CAPLUS COPYRIGHT 2003 ACS
TI VirB/D4-dependent protein translocation from Agrobacterium into **plant** cells

L4 ANSWER 16 OF 43 CAPLUS COPYRIGHT 2003 ACS
TI Inducible expression constructs for site-specific **recombinase** genes and their use in regulated **excision** of transforming DNA from **plant** genomes

L4 ANSWER 17 OF 43 CAPLUS COPYRIGHT 2003 ACS
TI New Ti plasmid derivatives for Agrobacterium-mediated transformation of crop **plants** using oncogenes instead of antibiotic resistance markers

L4 ANSWER 18 OF 43 CAPLUS COPYRIGHT 2003 ACS
TI Inducible site-specific recombination for the activation and removal of transgenes in transgenic **plants**

L4 ANSWER 19 OF 43 CAPLUS COPYRIGHT 2003 ACS
TI Methods for conditional **transgene** expression and trait removal in **plants**

L4 ANSWER 20 OF 43 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 3
TI FLP/FRT-mediated restoration of normal phenotypes and clonal sectors formation in rolC transgenic tobacco

=> d 11 so

L4 ANSWER 11 OF 43 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 1
SO Nature Biotechnology (2002), 20(6), 575-580
CODEN: NABIF9; ISSN: 1087-0156

=> d 16 ab

L4 ANSWER 16 OF 43 CAPLUS COPYRIGHT 2003 ACS
AB The invention relates to a method for the controlled elimination of a desired DNA sequence in a host organism, preferably a transgenic **plant**, said method being based on a **recombinase** ligand-binding-domain fusion protein (Rec-LBD). The elimination of the desired DNA sequence only takes place after the expression of the active Rec-LBD by the activation of the inducible promoter, which controls the Rec-LBD coding gene, and the addn. of the ligand which binds specifically to the Rec-LBD. The DNA sequence to be eliminated preferably codes for a **marker** gene, or acts as a transcription or translation stop sequence. The invention also relates to vectors and host organisms, preferably transgenic **plants**, which are suitable for use in said method.

=> d 18 ab

L4 ANSWER 18 OF 43 CAPLUS COPYRIGHT 2003 ACS
AB Disclosed is an inducible promoter system in conjunction with a site-specific recombination system which allows (i) specific activation of transgenes at specific times or (ii) **excision** and removal of transgenes (e.g., antibiotic resistance markers) from transgenic **plants**. These "suicide" gene cassettes, including the recombination system itself, can be evicted from the **plant** genome once their function has been exerted. The system is based on the ability to temporally and spatially induce the expression of CRE **recombinase** which then binds to directly repeated lox sites flanking the **transgene** in question leading to the precise **excision** of the gene cassette. Also disclosed is a method to activate an inverted, and therefore silent, **transgene** by placing two lox sites in opposite orientations flanking the **transgene**. This results in inversion of the intervening DNA fragment in the presence of CRE **recombinase**. This activation can be timed by placing the CRE **recombinase** under the control of an inducible promoter. In order to test this system a construct was designed that allows in **planta** monitoring of precise **excision** events using the firefly luciferase (LUC) reporter gene as a **marker** for

recombination.

=> d 18 pi

L4 ANSWER 18 OF 43 CAPLUS COPYRIGHT 2003 ACS

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001040492	A2	20010607	WO 2000-US42086	20001113
	WO 2001040492	A3	20020207		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

	EP 1232275	A2	20020821	EP 2000-992497	20001113

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

=> d 19 pi

L4 ANSWER 19 OF 43 CAPLUS COPYRIGHT 2003 ACS

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001036595	A2	20010525	WO 2000-US31600	20001116
	WO 2001036595	A3	20020124		

W: AU, BR, CA, HU, IL, JP, KR, MX, NZ, PL, US

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR

	CA 2359758	AA	20010525	CA 2000-2359758	20001116
	BR 2000008910	A	20020129	BR 2000-8910	20001116
	EP 1200617	A2	20020502	EP 2000-986220	20001116

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR

=> d 21-30 ti

L4 ANSWER 21 OF 43 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI Efficient elimination of selectable **marker** genes from the plastid genome by the CRE-lox site-specific recombination system.

L4 ANSWER 22 OF 43 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 4
TI Chemical-regulated, site-specific DNA **excision** in transgenic **plants**

L4 ANSWER 23 OF 43 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 5
TI Embryonal recombination and germline inheritance of recombined FRT loci mediated by constitutively expressed FLP in tobacco

L4 ANSWER 24 OF 43 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 6
TI A **recombinase**-mediated transcriptional induction system in transgenic **plants**

L4 ANSWER 25 OF 43 AGRICOLA DUPLICATE 7
TI A transformation vector for the production of **marker**-free transgenic **plants** containing a single copy **transgene** at high frequency.

L4 ANSWER 26 OF 43 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI Exploring redundancy in the yeast genome: An improved strategy for use of the cre-loxP system.

L4 ANSWER 27 OF 43 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI A novel strategy for constructing N-terminal chromosomal fusions to green fluorescent protein in the yeast Saccharomyces cerevisiae.

L4 ANSWER 28 OF 43 CAPLUS COPYRIGHT 2003 ACS
TI Recombinational cloning using nucleic acids having recombination sites

L4 ANSWER 29 OF 43 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI Somatic and germinal inheritance of an FLP-mediated deletion in transgenic tobacco.

L4 ANSWER 30 OF 43 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI Host-induced, stage-specific virulence gene activation in Candida albicans during infection.

=> d 22 ab

L4 ANSWER 22 OF 43 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 4
AB We have developed a chem.-inducible, site-specific DNA **excision** system in transgenic Arabidopsis **plants** mediated by the Cre/loxP DNA recombination system. Expression of the Cre **recombinase** was tightly controlled by an estrogen receptor-based fusion transactivator XVE. Upon induction by .beta.-estradiol, sequences encoding the selectable **marker**, Cre, and XVE sandwiched by two loxP sites were **excised** from the Arabidopsis genome, leading to activation of the downstream GFP (green fluorescent protein) reporter gene. Genetic and mol. analyses indicated that the system is tightly controlled, showing high-efficiency inducible DNA **excision** in all 19 transgenic events tested with either single or multiple T-DNA insertions. The system provides a highly reliable method to generate **marker**-free transgenic **plants** after transformation through either organogenesis or somatic embryogenesis.

=> d 24 ab

L4 ANSWER 24 OF 43 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 6
AB We constructed and tested a Cre-loxP recombination-mediated vector system termed pCrox for use in transgenic **plants**. In this system, treatment of Arabidopsis under inducing conditions mediates an **excision** event that removes an intervening piece of DNA between a promoter and the gene to be expressed. The system developed here uses a heat-shock-inducible Cre to **excise** a DNA fragment flanked by lox sites, thereby generating a constitutive GUS reporter gene under control of the CaMV 35S promoter. Heat-shock-mediated **excision** of several, independent lines resulted in varying degrees of recombination-mediated GUS activation. Induction was shown to be possible at essentially any stage of **plant** growth. This single vector system circumvents the need for genetic crosses required by other, dual **recombinase** vector systems. The pCrox system may prove particularly useful in instances where **transgene** over-expression, or under-expression by antisense, would otherwise affect embryo, seed or seedling viability.

=> d 28 ab

L4 ANSWER 28 OF 43 CAPLUS COPYRIGHT 2003 ACS
AB Recombinational cloning is provided by the use of nucleic acids, vectors

and methods, in vitro and in vivo, for moving or exchanging segments of DNA mols. using engineered recombination sites and recombination proteins to provide chimeric DNA mols. that have the desired characteristic(s) and/or DNA segment(s). Reversible and/or repeatable cloning and subcloning reactions can be used to manipulate nucleic acids to form chimeric nucleic acids using recombination proteins and recombination sites. Recombinational cloning according to the present invention thus uses recombination proteins with recombinant nucleic acid mols. having at least one selected recombination site for moving or exchanging segments of nucleic acids mols., in vitro and in vivo. The methods of the invention provide a means in which nucleic acid mol. of interest may be moved or transferred into any no. of vector systems. Such transfer to various vector systems may be accomplished sep., sequentially, or in mass (e.g., into any no. of different vectors in one step). The improved specificity, speed and/or yields of the present invention facilitates DNA or RNA cloning, subcloning, regulation or exchange useful for any related purpose. Two different sets of plasmids were constructed to demonstrate the in vitro method. One set, for use with CRE **recombinase** only, contained loxP and loxP 511 sites. A second set, for use with Cre and integrase, contained loxP and att sites. The efficiency of prodn. of the desired daughter plasmid was about 60-fold higher using both enzymes than using Cre alone.

=> d 31-43 ti

L4 ANSWER 31 OF 43 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 8
TI pBECKS2000: a novel plasmid series for the facile creation of complex binary vectors, which incorporates "clean-gene" facilities

L4 ANSWER 32 OF 43 AGRICOLA DUPLICATE 9
TI Selectable **marker**-free transgenic **plants** without sexual crossing: transient expression of cre **recombinase** and use of a conditional lethal dominant gene.

L4 ANSWER 33 OF 43 CAPLUS COPYRIGHT 2003 ACS
TI Regulated **excision** of a target gene from the transformation vector in the recipient cell using a site-specific **recombinase**

L4 ANSWER 34 OF 43 CAPLUS COPYRIGHT 2003 ACS
TI Use of the Cre/loxP system in site-specific recombination in **plant** cells

L4 ANSWER 35 OF 43 CAPLUS COPYRIGHT 2003 ACS
TI **Recombinase** systems in **plants**

L4 ANSWER 36 OF 43 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI A new efficient gene disruption cassette for repeated use in budding yeast.

L4 ANSWER 37 OF 43 CAPLUS COPYRIGHT 2003 ACS
TI Inducible ternary control of **transgene** expression and cell ablation in Drosophila

L4 ANSWER 38 OF 43 AGRICOLA DUPLICATE 10
TI A system for insertional mutagenesis and chromosomal rearrangement using the Ds transposon and Cre-lox.

L4 ANSWER 39 OF 43 AGRICOLA
TI FLP **recombinase** in transgenic **plants**: constitutive activity in stably transformed tobacco and generation of marked cell clones in Arabidopsis.

L4 ANSWER 40 OF 43 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

TI Recycling selectable markers in yeast.

L4 ANSWER 41 OF 43 CAPLUS COPYRIGHT 2003 ACS
TI Exchange of gene activity in transgenic **plants** catalyzed by the Cre-lox site-specific recombination system

L4 ANSWER 42 OF 43 CAPLUS COPYRIGHT 2003 ACS
TI Directed **excision** of a **transgene** from the **plant** genome

L4 ANSWER 43 OF 43 AGRICOLA DUPLICATE 11
TI Gene transfer with subsequent removal of the selection gene from the host genome.

=> d 35 ab

L4 ANSWER 35 OF 43 CAPLUS COPYRIGHT 2003 ACS
AB A review with several refs. Several site-specific DNA recombination systems have been shown to function in **plants**. **Excision** and integration of DNA relevant to genetic transformation have been described. Site-specific **excision** can remove selectable **marker** genes from **plant** genomes, permitting subsequent rounds of gene transfer with the same selection protocol. The elimination of **marker** genes from transgenic crop **plants** also eases concerns over the widespread release of antibiotic resistance genes. Site-specific integration of DNA has demonstrated the precise insertion of single-copy DNA into recombination sites previously placed in the **plant** genome. The reproducible insertion of DNA constructs into the same site permits anal. of gene alleles in the same chromosome configuration. Site-specific recombination has also been used to restructure **plant** genomes. Recombination between sites placed on the same or on different chromosomes has generated chromosome deletions, inversions and reciprocal chromosome translocations. Site-specific recombination of chromosomes in vitro can also fractionate large chromosome fragments. In this session, the authors will present findings on the ongoing development of site-specific recombination for monocot transformation, chromosome rearrangements, interspecies chromosome recombination, and anal. of **transgene** expression.

=> d 35 so

L4 ANSWER 35 OF 43 CAPLUS COPYRIGHT 2003 ACS
SO Biological Sciences Symposium, San Francisco, Oct. 19-23, 1997 (1997), 295-297 Publisher: TAPPI Press, Atlanta, Ga.
CODEN: 66GVA7

=> s l4 and (stop or block?)
L5 6 L4 AND (STOP OR BLOCK?)

=> d 1-6 ti

L5 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2003 ACS
TI Two site-specific recombination system for **excising** **transgene** from **plant** leading to reduction of transmission of **transgene**

L5 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2003 ACS
TI Inducible expression constructs for site-specific **recombinase** genes and their use in regulated **excision** of transforming DNA from **plant** genomes with selection of transformed **plants**

L5 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2003 ACS
TI Molecular control of **transgene** escape by a repressible **excision** system using controlled **recombinase** expression

L5 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2003 ACS
TI Inducible expression constructs for site-specific **recombinase** genes and their use in regulated **excision** of transforming DNA from **plant** genomes

L5 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2003 ACS
TI Methods for conditional **transgene** expression and trait removal in **plants**

L5 ANSWER 6 OF 6 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI Somatic and germinal inheritance of an FLP-mediated deletion in transgenic tobacco.

=> d 1-6 so

L5 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2003 ACS
SO PCT Int. Appl., 38 pp.
CODEN: PIXXD2

L5 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2003 ACS
SO PCT Int. Appl., 29 pp.
CODEN: PIXXD2

L5 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2003 ACS
SO U.S. Pat. Appl. Publ., 21 pp., Cont.-in-part of U. S. Ser. No. 617,543.
CODEN: USXXCO

L5 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2003 ACS
SO PCT Int. Appl., 31 pp.
CODEN: PIXXD2

L5 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2003 ACS
SO PCT Int. Appl., 90 pp.
CODEN: PIXXD2

L5 ANSWER 6 OF 6 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
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PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002016624	A1	20020228	WO 2000-SG124	20000825
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 2000070487	A5	20020304	AU 2000-70487	20000825

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PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI WO 2002012474 A2 20020214 WO 2001-DE2511 20010704
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
DE 10038573 A1 20020221 DE 2000-10038573 20000803
AU 2001079561 A5 20020218 AU 2001 79561 20010704

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PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2002007500	A1	20020117	US 2001-783292	20010215
WO 2002006498	A1	20020124	WO 2001 FI670	20010716

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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

WO 2002064801 A1 20020822 WO 2002 FI118 20020214
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
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PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001088164	A1	20011122	WO 2001-DE780	20010228

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

DE 10024740 A1 20011129 DE 2000-10024740 20000519
AU 2001046363 A5 20011126 AU 2001-46363 20010228

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PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001036595	A2	20010525	WO 2000-US31600	20001116
WO 2001036595	A3	20020124		

W: AU, BR, CA, HU, IL, JP, KR, MX, NZ, PL, US
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR

CA 2359758	AA	20010525	CA 2000-2359758	20001116
BR 2000008910	A	20020129	BR 2000-8910	20001116
EP 1200617	A2	20020502	EP 2000-986220	20001116

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR

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AB Site-specific recombinases are increasingly being used in transgenic **plants** to engineer genetic rearrangements such as the removal of unwanted selectable markers and the activation or delation of expressed genes. Here a convenient vector system for the activation of **transgene** expression by FLP-mediated deletion of a transcription **blocking** sequence is presented. To investigate somatic and germinal transmission of deletion/activation events in transgenic tobacco (Nicotiana tabacum L. var. Xanthi) a derivative of this vector was constructed in which a spectinomycin resistance (SPEC) gene was introduced into **plants** in a silent state, separated from a CaMV 35S promoter by a GUS gene **blocking** sequence flanked by FLP target sites (FRTs). SPEC can therefore be activated by FLP-mediated **excision** of GUS. After crossing to appropriate FLP-expressing **plants**, heat-shock-induced FLP expression efficiently generated sectors of spectinomycin-resistant tobacco tissue. Constitutive expression of FLPresulted in activation of SPEC and loss of GUS activity in most somatic tissues of all **plants** carrying 35S-FLP and the target construct. One of the eight **plants** tested tramsmitted the recombined state to all progeny, indicative of **excision** activity in germinal tissue.